

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Original) An apparatus having means for segmenting a series of 2D or 3D images obtained of a patient's organ or other body part, wherein a first segmentation is carried out on a first image of the series of images and wherein the first segmentation is used for the subsequent segmentation of the remainder of images of said series of images, characterized in that in relation to the images said means carry out a series of transformations wherein each separate transformation embodies a fitting operation between two images of said series of images, and wherein substantially all images of the series of images are subjected to such a transformation, and wherein the first segmentation on the first image of the series of images is modified and subsequently applied to any further image of the series of images according to the transformation or sequence of transformations that fits the said first image to said further image of the series of images.

2. (Original) An apparatus according to claim 1, characterized in that each transformation relates to adjacent or immediately successive images of the series of images.

3. (Original) An apparatus according to claim 1, characterized in that there are two or more series of images and that the segmentation of a first series of images is applied to all series of images.

4. (Currently Amended) An apparatus according to claim 3, characterized in that the respective series of images are collected with different means of monitoring selected from the group ~~MR, CT, NM and US~~, consisting of: magnetic resonance (MR), computer tomography (CT), nuclear

medicine (NM) and ultrasound (US).

5. (Previously Presented) An apparatus according to claim 3, characterized in that the respective series of images are collected at different times.

6. (Currently Amended) An apparatus according to claim 1, wherein the images relate to a substantially sphere-like organ such as a heart, characterized in that prior to establishing the said series of transformations, the series of images are converted to a modified series of images showing the walls of the organ in a flat plane wherein the left and right part of said plane substantially correspond to the inside and outside of said organ, and that the said series of transformations are applied to the modified series of images.

7. ~~Software~~ A computer readable medium having processor-executable instructions thereon for an apparatus arranged for segmenting a series of 2D or 3D images obtained of a patient's organ or other body part, wherein a first segmentation is carried out on a first image of the series of images and wherein the first segmentation is used for the subsequent segmentation of the remainder of images of said series of images, characterized in that in relation to the images a series of transformations are established wherein each separate transformation embodies a fitting operation between two images of said series of images, and wherein substantially all images of the series of images are subjected to such a transformation, and wherein the first segmentation on the first image of the series of images is modified and subsequently applied to any further image of the series of images according to the transformation or sequence of transformations that fits

the said first image to said further image of the series of images.

8. (Currently Amended) ~~Software~~ A computer readable medium according to claim 7, characterized in that each transformation relates to adjacent or immediately successive images of the series of images.

9. (Currently Amended) ~~Software~~ A computer readable medium according to claim 7, characterized in that there are two or more series of images and that the segmentation of a first series of images is applied to all series of images.

10. (Currently Amended) ~~Software~~ A computer readable medium according to claim 7, wherein the images relate to a ~~substantially~~ sphere-like organ such as a heart, characterized in that prior to establishing the said series of transformations, the series of images are converted to a modified series of images showing the walls of the organ in a flat plane wherein the left and right part of said plane substantially correspond to the inside and outside of said organ, and that the said series of transformations are applied to the modified series of images.

11. (Original) A method for segmenting a series of 2D or 3D images obtained of a patient's organ or other body part, wherein a first segmentation is carried out on a first image of the series of images and wherein the first segmentation is used for the subsequent segmentation of the remainder of images of said series of images, characterized in that in relation to the images a series of transformations are established wherein each separate transformation embodies a fitting

operation between two images of said series of images, and wherein substantially all images of the series of images are subjected to such a transformation, and that the first segmentation on the first image of the series of images is modified and subsequently applied to any further image of the series of images according to the transformation or sequence of transformations that fits the said first image to said further image of the series of images.

12. (Original) A method according to claim 11, characterized in that each transformation relates to adjacent or immediately successive images of the series of images.

13. (Original) A method according to claim 11, characterized in that there are two or more series of images and that the segmentation of a first series of images is applied to all series of images.

14. (Currently Amended) A method according to claim 13, characterized in that the respective series of images are collected with different means of monitoring selected from the group ~~MR, CT, NM and US~~ consisting of: magnetic resonance (MR), computer tomography (CT), nuclear medicine (NM) and ultrasound (US).

15. (Previously Presented) A method according to claim 13, characterized in that the respective series of images are collected at different times.

16. (Currently Amended) A method according to claim 11, wherein the images relate to a ~~substantially~~ sphere-like organ such as a heart, characterized in that prior to establishing the said series of transformations, the series of images are converted to a modified series of images showing the walls of the organ in a flat plane wherein the left and right part of said plane substantially correspond to the inside and outside of said organ, and that the said series of transformations are applied to the modified series of images.